TITLE OF THE ABSTRACT : Clinical Utility of ISTH BAT and Thromboelastography for assessment of patients referred for evaluation of Bleeding disorders.

DEPARTMENT : Transfusion Medicine and Immunohematology

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OBJECTIVES:

To calculate the sensitivity,specificity, Negative predictive value(NPV) and Positive Predictive value(PPV) of ISTH BAT, Thromboelastography and both the modalities taken together in patients referred for complete coagulation work-up.

METHODS:

223 patients, referred to our lab for evaluation of bleeding disorders in between November 2015to May 2016 were enrolled into the study. There were no exclusion criteria to begin with. Per protocol these patients were administered the ISTH BAT and also all the tests that we do for referred patients were carried out as per protocol. Informed consent was taken.
The calculated bleeding score and the TEG obtained were analyzed and the diagnostic accuracy of these tests in identifying a bleeding patient was calculated. We looked for the sensitivity, specificity, NPV and PPV of these tests singly and together. For the final analysis we excluded 20 patients, 18 of them with acquired condition and 2 for improper history.

RESULTS:

The sensitivity and specificity of Bleeding score in picking up bleeding disorders were 92.2% and 65.2% respectively. The Negative and positive predictive value for this particular modality was found to be 86.4% and 78.1 % respectively. Since our study included many cases of Severe Hemophilia A and B we excluded them and then calculated the sensitivity and specificity. When that was done we got the sensitivity and specificity of 89.1% and 63.3%. The Sensitivity and specificity of TEG was 86.0% and 85.7% respectively. NPV was 80.9%. We combined these two modalities together and the sensitivity and NPV in that case was 97.5% and 94% respectively.

CONCLUSION: Diagnosis especially of a rare bleeding disorder and mild bleeding disorder is a challenge. There are a battery of tests but none effective enough . The importance of history in bleeding disorder is well proven, this along with the resource constraints that plagues most of our set-up a questionnaire and a single test capable of excluding a bleeding disorder would be of great use. We conclude that BAT and TEG are a good screening tool for inherited bleeding disorders.

KEYWORDS : ISTH BAT, TEG.